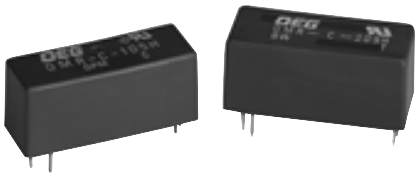


OMR series

Dry Reed Relay

Telecommunications, Office Machines.

UL File No. E82292

Features

- Low cost, small package dry reed relay.
- 1 Form A contact and 2 Form A arrangements.

Contact Data @ 20°C

Arrangements: 1 Form A (SPST-NO), 2 Form A (DPST-NO).
Material: Rh, Ru.
Max. Switching Rate: 300 ops./min. (no load).
30 ops./min. (rated load).
Expected Mechanical Life: 100 million operations (no load).
Expected Electrical Life: 1,000,000 operations (rated load).
Minimum Load: 1mA @ 1VDC.
Initial Contact Resistance: 150 milliohms @ 100mA, 6VDC.

Contact Ratings

Ratings:
100µA @ 5VDC, 100,000,000 operations.
1mA @ 5VDC, 50,000,000 operations.
5mA @ 5VDC, 50,000,000 operations.

5mA @ 12VDC, 50,000,000 operations.
10mA @ 12VDC, 50,000,000 operations.
100mA @ 12VDC, 10,000,000 operations.

100mA @ 24VDC, 7,000,000 operations.
200mA @ 24VDC, 7,000,000 operations.
400mA @ 24VDC, 5,000,000 operations.

Max. Switched Voltage: **AC:** 120V.
DC: 60V.
Max. Switched Current: 1A (OMR-F), 0.5A (OMR-H).
Max. Switched Power: **OMR-F:** 50VA, 50W.
OMR-H: 10VA, 10W.

Initial Dielectric Strength

Between Open Contacts: 200VDC. (1 second).
Between Coil and Contacts: 3,000VDC. (1 second).
Surge Voltage Between Coil and Contacts: 3,000V (10 / 160µs).

Initial Insulation Resistance

Between Mutually Insulated Elements: 1,000M ohms min. @ 100VDCM.

Coil Data

Voltage: 3 to 24VDC.
Nominal Power: 100 mW to 280mW.
Coil Temperature Rise: 30°C max., at rated coil voltage.
Max. Coil Power: 160% of nominal.
Duty Cycle: Continuous.

Coil Data @ 20°C

OMR				
Rated Coil Voltage (VDC)	**Nominal Current (mA)**	**Coil Resistance (ohms) ± 10%**	**Must Operate Voltage (VDC)**	**Must Release Voltage (VDC)**
3	47.6	63	2.10	0.30
5/6	24.0	250	3.50	0.50
9	12.9	700	6.30	0.90
12	11.4	1,050	8.40	1.20
24	11.5	2,080	16.80	2.40

Operate Data

Must Operate Voltage: 70% of nominal voltage or less.
Must Release Voltage: 10% of nominal voltage or more.
Operate Time: 1.0 ms max.
Release Time: 0.5 ms max.

Environmental Data

Temperature Range:
Operating: -30°C to +70°C
Vibration, Mechanical: 10 to 55 Hz., 1.5mm double amplitude
Operational: 10 to 55 Hz., 1.5mm double amplitude.
Shock, Mechanical: 1,000m/s² (100G approximately).
Operational: 100m/s² (10G approximately).
Operating Humidity: 20 to 85% RH. (Non-condensing)

Mechanical Data

Termination: Printed circuit terminals.
Enclosure (94V-0 Flammability Ratings):
OMR: Open, no cover.
OMR-C: Snap-on dust cover.
Weight: 0.16 oz (4.5g) approximately.

Ordering Information

Typical Part Number ▶	OMR	-C	-1	12	H

1. Basic Series:
OMR = Dry Reed Relay.

2. Enclosure:
Blank = Open, no cover.
C = Snap-on dust cover.

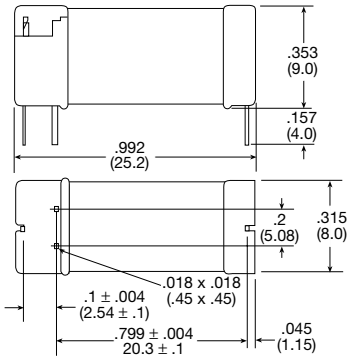
3. Termination:
1 = 1 pole 2 = 2 pole

4. Coil Voltage:
03 = 3VDC 09 = 9VDC 24 = 24VDC
06 = 6VDC 12 = 12VDC

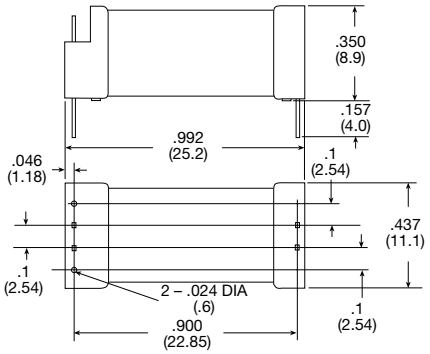
5. Contact Rating:
H = 0.5A @ 120VAC F = 1A @ 120VAC

Outline Dimensions

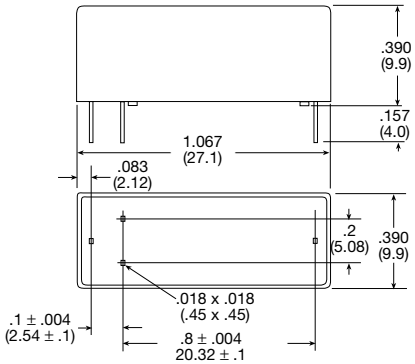
Open Type, 1 Form A



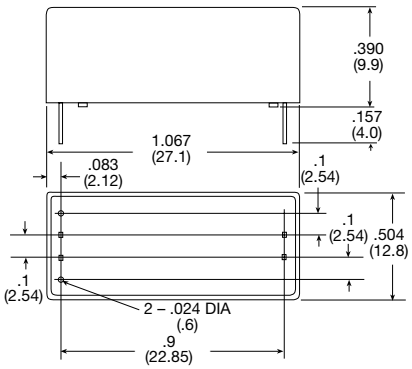
Open Type, 2 Form A



Snap-on Dust Cover Type, 1 Form A

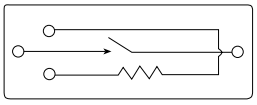


Snap-on Dust Cover type, 2 Form A

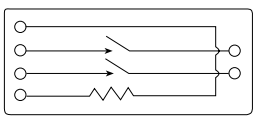


Wiring Diagrams (Bottom View)

1 Form A

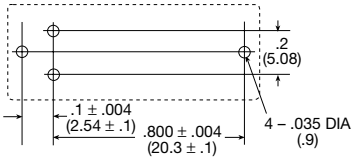


2 Form A



PC Board Layout (Bottom View)

1 Form A



2 Form A